

Application Number 09/831,496  
Attorney Docket Number 0425-0837P  
Page 5 of 8

REMARKS

Pursuant to a telephonic discussion with Examiner Therkorn, the claims are amended to delete diffusion promoting device features (ii) and (iii) from this application. Applicants reserve the right to file one or more divisional applications directed to the subject matter deleted from this application.

Conclusion

If the Examiner has any questions concerning this application, he is requested to contact Richard Gallagher, Reg. No. 28,781, at (703) 205-8000 in the Washington, D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

*DRAFT*

By \_\_\_\_\_  
Marc S. Weiner  
Reg. No. 32,181

P. O. Box 747  
Falls Church, VA 22040-0747  
(703) 205-8000

MSW/RG

Attachment: Version with Markings to Show Changes Made

Application Number 09/831,496  
Attorney Docket Number 0425-0837P  
Page 6 of 8

***Marked up text showing changes:***

2. (thrice amended) A method for improving a detection sensitivity of a target component, which comprises providing the diffusion promoting device just before a separation column in a high performance liquid chromatographic apparatus having a flow velocity gradient of 250 microliters per minute or less, wherein said diffusion promoting device comprises a solvent inlet tube and a solvent outlet tube and wherein said device includes [at least one feature selected from the group consisting of (i) having] a solvent inlet tube and a solvent outlet tube with different inner diameters[, (ii) having a solvent outlet tube connected to a solvent inlet tube at an acute angle, a right angle, or an obtuse angle, and (iii) having a solvent outlet tube connected to a solvent inlet tube by a connecting part having a diameter that is larger than the diameters of the diameters of the solvent inlet and outlet tubes].

8. (thrice amended) A high performance liquid chromatographic apparatus having a flow velocity gradient of 250 microliters per minute or less, said apparatus comprising a diffusion promoting device that comprises a solvent inlet tube and a solvent outlet tube, wherein said device includes [at least one feature selected from the group consisting of (i) having] a solvent inlet tube and a solvent outlet tube with different inner diameters[, (ii) having a

Application Number 09/831,496  
Attorney Docket Number 0425-0837P  
Page 7 of 8

solvent outlet tube connected to a solvent inlet tube at an acute angle, a right angle, or an obtuse angle, and (iii) having a solvent outlet tube connected to a solvent inlet tube by a connecting part having a diameter that is larger than the diameters of the diameters of the solvent inlet and outlet tubes, said diffusion promoting device being positioned just before the separation column].

10. (four times amended) A high performance liquid chromatographic apparatus having a flow velocity gradient of 250 microliters per minute or less, said apparatus being one in which a solvent pump (P1), an injector (I), and a switching valve (V) are connected in this order in one line; and a solvent pump (P2), a switching valve (V), a diffusion promoting device (DU) that comprises a solvent inlet tube and a solvent outlet tube, wherein said device includes [at least one feature selected from the group consisting of (i) having] a solvent inlet tube and a solvent outlet tube with different inner diameters, [(ii) having a solvent outlet tube connected to a solvent inlet tube at an acute angle, a right angle, or an obtuse angle, and (iii) having a solvent outlet tube connected to a solvent inlet tube by a connecting part having a diameter that is larger than the diameters of the diameters of the solvent inlet and outlet tubes,] a separation column (C), and a detector (D) are connected in another line.

11. (four times amended) A high performance liquid chromatographic apparatus having a flow velocity gradient of 250 microliters per minute or less,

Application Number 09/831,496  
Attorney Docket Number 0425-0837P  
Page 8 of 8

said apparatus being one in which a solvent pump (P1), a switching valve (V), a solvent mixer (MC), and a switching valve (V) are connected in this order in one line; a solvent pump (P2), a switching valve (V), a diffusion promoting device (DU) that comprises a solvent inlet tube and a solvent outlet tube, wherein said device includes [at least one feature selected from the group consisting of (i) having] a solvent inlet tube and a solvent outlet tube with different inner diameters, [(ii) having a solvent outlet tube connected to a solvent inlet tube at an acute angle, a right angle, or an obtuse angle, and (iii) having a solvent outlet tube connected to a solvent inlet tube by a connecting part having a diameter that is larger than the diameters of the diameters of the solvent inlet and outlet tubes,] a separation column (C), and a detector (D) are connected in another line; and a switching valve (V), a component concentration column (M), and a switching valve (V) are connected in a different line.